



PCT10

## RAW SEQUENCE LISTING

DATE: 09/11/2002

PATENT APPLICATION: US/10/088,952

TIME: 11:26:05

Input Set : A:\Nih405-1.app

Output Set: N:\CRF4\09112002\J088952.raw

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ENTERED

3 <110> APPLICANT: Leppla, Stephen H.  
 4 Liu, Shi-Hui  
 5 Netzel-Arnett, Sarah  
 6 Hansen-Birkendal, Henning  
 7 Bugge, Thomas  
 8 The Government of the United States of America  
 9 as represented by the Secretary of the  
 10 Department of Health and Human Services  
 12 <120> TITLE OF INVENTION: Mutated Anthrax Toxin Protective Antigen Proteins That  
 13 Specifically Target Cells Containing High Amounts of  
 14 Cell-Surface Metalloproteinases or Plasminogen  
 15 Activator Receptors  
 17 <130> FILE REFERENCE: 015280-405100US  
 19 <140> CURRENT APPLICATION NUMBER: US 10/088,952  
 20 <141> CURRENT FILING DATE: 2002-03-22  
 22 <150> PRIOR APPLICATION NUMBER: US 60/155,961  
 23 <151> PRIOR FILING DATE: 1999-09-24  
 25 <150> PRIOR APPLICATION NUMBER: WO PCT/US00/26192  
 26 <151> PRIOR FILING DATE: 2000-09-22  
 28 <160> NUMBER OF SEQ ID NOS: 28  
 30 <170> SOFTWARE: PatentIn Ver. 2.1  
 32 <210> SEQ ID NO: 1  
 33 <211> LENGTH: 4  
 34 <212> TYPE: PRT  
 35 <213> ORGANISM: Artificial Sequence  
 37 <220> FEATURE:  
 38 <223> OTHER INFORMATION: Description of Artificial Sequence: furin-like  
 39 protease cleavage sequence  
 41 <400> SEQUENCE: 1  
 42 Arg Lys Lys Arg  
 43 1  
 46 <210> SEQ ID NO: 2  
 47 <211> LENGTH: 8  
 48 <212> TYPE: PRT  
 49 <213> ORGANISM: Artificial Sequence  
 51 <220> FEATURE:  
 52 <223> OTHER INFORMATION: Description of Artificial Sequence: matrix  
 53 metalloproteinase (MMP)-recognized cleavage site,  
 54 gelatinase favorite substrate sequence  
 56 <400> SEQUENCE: 2  
 57 Gly Pro Leu Gly Met Leu Ser Gln  
 58 1 5  
 61 <210> SEQ ID NO: 3

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62 <211> LENGTH: 8  
63 <212> TYPE: PRT  
64 <213> ORGANISM: Artificial Sequence  
66 <220> FEATURE:  
67 <223> OTHER INFORMATION: Description of Artificial Sequence:matrix  
68 metalloproteinase (MMP)-recognized cleavage site,  
69 gelatinase favorite substrate sequence  
71 <400> SEQUENCE: 3  
72 Gly Pro Leu Gly Leu Trp Ala Gln  
73 1 5  
76 <210> SEQ ID NO: 4  
77 <211> LENGTH: 9  
78 <212> TYPE: PRT  
79 <213> ORGANISM: Artificial Sequence  
81 <220> FEATURE:  
82 <223> OTHER INFORMATION: Description of Artificial Sequence:tissue-type  
83 plasminogen activator (t-PA) and urokinase-type  
84 (u-PA) recognized cleavage site, physiological  
85 substrate sequence  
87 <400> SEQUENCE: 4  
88 Pro Cys Pro Gly Arg Val Val Gly Gly  
89 1 5  
92 <210> SEQ ID NO: 5  
93 <211> LENGTH: 7  
94 <212> TYPE: PRT  
95 <213> ORGANISM: Artificial Sequence  
97 <220> FEATURE:  
98 <223> OTHER INFORMATION: Description of Artificial Sequence:urokinase-type  
99 plasminogen activator (u-PA)-recognized cleavage  
100 site, favorite sequence  
102 <400> SEQUENCE: 5  
103 Pro Gly Ser Gly Arg Ser Ala  
104 1 5  
107 <210> SEQ ID NO: 6  
108 <211> LENGTH: 7  
109 <212> TYPE: PRT  
110 <213> ORGANISM: Artificial Sequence  
112 <220> FEATURE:  
113 <223> OTHER INFORMATION: Description of Artificial Sequence:urokinase-type  
114 plasminogen activator (u-PA)-recognized cleavage  
115 site, favorite sequence  
117 <400> SEQUENCE: 6  
118 Pro Gly Ser Gly Lys Ser Ala  
119 1 5  
122 <210> SEQ ID NO: 7  
123 <211> LENGTH: 7  
124 <212> TYPE: PRT  
125 <213> ORGANISM: Artificial Sequence  
127 <220> FEATURE:

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128 <223> OTHER INFORMATION: Description of Artificial Sequence:tissue-type
129     plasminogen activator (t-PA)-recognized cleavage
130     site, favorite sequence
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134   1           5
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138 <211> LENGTH: 18
139 <212> TYPE: DNA
140 <213> ORGANISM: Artificial Sequence
142 <220> FEATURE:
143 <223> OTHER INFORMATION: Description of Artificial Sequence:5' primer F
145 <400> SEQUENCE: 8
146 aaaggagaac gtatatga
149 <210> SEQ ID NO: 9
150 <211> LENGTH: 30
151 <212> TYPE: DNA
152 <213> ORGANISM: Artificial Sequence
154 <220> FEATURE:
155 <223> OTHER INFORMATION: Description of Artificial Sequence:phosphorylated
156     primer R1
158 <220> FEATURE:
159 <221> NAME/KEY: modified_base
160 <222> LOCATION: (1)
161 <223> OTHER INFORMATION: n = phosphorylated t
163 <400> SEQUENCE: 9
W--> 164 ngagttcgaa gatttttggg ttaattctgg
167 <210> SEQ ID NO: 10
168 <211> LENGTH: 52
169 <212> TYPE: DNA
170 <213> ORGANISM: Artificial Sequence
172 <220> FEATURE:
173 <223> OTHER INFORMATION: Description of Artificial Sequence:mutagenic
174     phosphorylated sequence primer H1
176 <220> FEATURE:
177 <221> NAME/KEY: modified_base
178 <222> LOCATION: (1)
179 <223> OTHER INFORMATION: n = phosphorylated g
181 <400> SEQUENCE: 10
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185 <210> SEQ ID NO: 11
186 <211> LENGTH: 21
187 <212> TYPE: DNA
188 <213> ORGANISM: Artificial Sequence
190 <220> FEATURE:
191 <223> OTHER INFORMATION: Description of Artificial Sequence:reverse primer
192     R2
194 <400> SEQUENCE: 11
195 acgttttatct cttattaaaa t

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198 <210> SEQ ID NO: 12
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200 <212> TYPE: DNA
201 <213> ORGANISM: Artificial Sequence
203 <220> FEATURE:
204 <223> OTHER INFORMATION: Description of Artificial Sequence:phosphorylated
205     mutagenic primer H2
207 <220> FEATURE:
208 <221> NAME/KEY: modified_base
209 <222> LOCATION: (1)
210 <223> OTHER INFORMATION: n = phosphorylated g
212 <400> SEQUENCE: 12
W--> 213 ngaccattag gattatgggc acaaagtaca agtgctggac ctacggttcc ag          52
216 <210> SEQ ID NO: 13
217 <211> LENGTH: 33
218 <212> TYPE: DNA
219 <213> ORGANISM: Artificial Sequence
221 <220> FEATURE:
222 <223> OTHER INFORMATION: Description of Artificial Sequence:phosphorylated
223     reverse primer R1
225 <220> FEATURE:
226 <221> NAME/KEY: modified_base
227 <222> LOCATION: (1)
228 <223> OTHER INFORMATION: n = phosphorylated t
230 <400> SEQUENCE: 13
W--> 231 nggtgagttc gaagattttt gttttaattc tgg          33
234 <210> SEQ ID NO: 14
235 <211> LENGTH: 52
236 <212> TYPE: DNA
237 <213> ORGANISM: Artificial Sequence
239 <220> FEATURE:
240 <223> OTHER INFORMATION: Description of Artificial Sequence:mutagenic
241     phosphorylated primer H1
243 <220> FEATURE:
244 <221> NAME/KEY: modified_base
245 <222> LOCATION: (1)
246 <223> OTHER INFORMATION: n = phosphorylated t
248 <400> SEQUENCE: 14
W--> 249 ngtcaggaa gagtagttgg aggaagtaca agtgctggac ctacggttcc ag          52
252 <210> SEQ ID NO: 15
253 <211> LENGTH: 8
254 <212> TYPE: PRT
255 <213> ORGANISM: Artificial Sequence
257 <220> FEATURE:
258 <223> OTHER INFORMATION: Description of Artificial Sequence:encoded by
259     mutagenic phosphorylated primer H1
261 <400> SEQUENCE: 15
262 Cys Pro Gly Arg Val Val Gly Gly
263     1          5

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Input Set : A:\Nih405-1.app

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266 <210> SEQ ID NO: 16
267 <211> LENGTH: 46
268 <212> TYPE: DNA
269 <213> ORGANISM: Artificial Sequence
271 <220> FEATURE:
272 <223> OTHER INFORMATION: Description of Artificial Sequence:phosphorylated
273     mutagenic primer H2
275 <220> FEATURE:
276 <221> NAME/KEY: modified_base
277 <222> LOCATION: (1)
278 <223> OTHER INFORMATION: n = phosphorylated g
280 <400> SEQUENCE: 16
W--> 281 ngaagtggaa gatcagcaag tacaagtgct ggacctacgg ttccag          46
284 <210> SEQ ID NO: 17
285 <211> LENGTH: 6
286 <212> TYPE: PRT
287 <213> ORGANISM: Artificial Sequence
289 <220> FEATURE:
290 <223> OTHER INFORMATION: Description of Artificial Sequence:encoded by
291     phosphorylated mutagenic primer H2
293 <400> SEQUENCE: 17
294 Gly Ser Gly Arg Ser Ala
295   1           5
298 <210> SEQ ID NO: 18
299 <211> LENGTH: 46
300 <212> TYPE: DNA
301 <213> ORGANISM: Artificial Sequence
303 <220> FEATURE:
304 <223> OTHER INFORMATION: Description of Artificial Sequence:phosphorylated
305     mutagenic primer H3
307 <220> FEATURE:
308 <221> NAME/KEY: modified_base
309 <222> LOCATION: (1)
310 <223> OTHER INFORMATION: n = phosphorylated g
312 <400> SEQUENCE: 18
W--> 313 ngaagtggaa aatcagcaag tacaagtgct ggacctacgg ttccag          46
316 <210> SEQ ID NO: 19
317 <211> LENGTH: 6
318 <212> TYPE: PRT
319 <213> ORGANISM: Artificial Sequence
321 <220> FEATURE:
322 <223> OTHER INFORMATION: Description of Artificial Sequence:encoded by
323     phosphorylated mutagenic primer H3
325 <400> SEQUENCE: 19
326 Gly Ser Gly Lys Ser Ala
327   1           5
330 <210> SEQ ID NO: 20
331 <211> LENGTH: 46
332 <212> TYPE: DNA

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RAW SEQUENCE LISTING ERROR SUMMARY  
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Please Note:

Use of n and/or Xaa have been detected in the Sequence Listing. Please review the Sequence Listing to ensure that a corresponding explanation is presented in the <220> to <223> fields of each sequence which presents at least one n or Xaa.

Seq#:9; N Pos. 1  
Seq#:10; N Pos. 1  
Seq#:12; N Pos. 1  
Seq#:13; N Pos. 1  
Seq#:14; N Pos. 1  
Seq#:16; N Pos. 1  
Seq#:18; N Pos. 1  
Seq#:20; N Pos. 1